

WHAT IS CLAIMED

1. A magnetic recording/reading apparatus comprising:

a bearing holder configured for connection to a motor frame to rotatably support a shaft;

5 a stator core on which a coil is wound to interact with a magnet on a rotor frame to generate rotational force to rotate the shaft; and

a circuit board;

wherein the bearing holder, the stator core and the circuit board each comprise at least one hole aligned with respect to each other and configured to receive a soldering boss device

10 therethrough for coupling together as an assembly, the soldering boss device comprising first and second soldering boss portions protruding from the corresponding hole at the top and bottom, respectively, of the assembly to facilitate the coupling thereof.

2. A magnetic reading/recording apparatus as claimed in claim 1, further

15 comprising a plurality of the holes in each of the bearing holder, the stator core and the circuit board for each receiving respective soldering boss devices, the plurality of holes in the bearing holder being arranged radially about the shaft.

3. A magnetic reading/recording apparatus as claimed in claim 1, wherein the

20 bearing holder comprises another hole configured to receive a screw threaded into the motor frame of the magnetic reading/recording apparatus.

4. A magnetic reading/recording apparatus as claimed in claim 3, wherein the

bearing holder and the motor frame each comprise a plurality of the holes, the plurality of
25 holes receiving respective screws therethrough.

5. A magnetic reading/recording apparatus as claimed in claim 4, wherein the bearing holder, the stator core and the circuit board each comprise a plurality of the holes for receiving respective soldering boss devices therethrough.

5 6. A magnetic reading/recording apparatus as claimed in claim 5, wherein the plurality of the holes in the bearing holder for receiving respective soldering boss devices are arranged radially with respect to each other about the shaft.

7. A magnetic reading/recording apparatus as claim in claim 6, wherein the
10 plurality of holes in bearing holder for receiving respective soldering boss devices consists of three such holes spaced 120° radially with respect to each other.

8. A magnetic reading/recording apparatus as claimed in claim 6, wherein the
15 plurality of holes in the bearing holder for receiving respective screws are interspersed with the plurality of holes in the bearing holder for receiving respective soldering boss devices.

9. A magnetic reading/recording apparatus as claimed in claim 8, wherein the
plurality of holes in the bearing holder for receiving respective screws are alternated with the
plurality of holes in the bearing holder for receiving respective soldering boss devices.

20 10. A magnetic reading/recording apparatus as claimed in claim 9, wherein each of the holes in the bearing holder for receiving respective soldering boss devices consists of three such holes spaced 120° radially with respect to each other and each of the holes in the bearing holder for receiving respective screws.

25 11. A magnetic reading/recording apparatus as claimed in claim 1, wherein the bearing holder is composed of a plastic synthetic material.

12. A magnetic reading/recording apparatus as claimed in claim 1, wherein the soldering boss device is soldered in the hole, and the solder is spread widely over the corresponding hole at the top and bottom, respectively, of the assembly.

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13. A magnetic reading/recording apparatus as claimed in claim 1, wherein the coil is electrically connected to the circuit board by a lead line.

14. A magnetic reading/recording apparatus as claimed in claim 2, wherein the starter core comprises a plurality of ribs extending from an inner circumferential portion thereof, the plurality of holes in the stator core being formed in corresponding ribs.

15. A method of assembling a capstan-motor assembly for a magnetic reading/recording apparatus, the capstan-motor assembly having a bearing holder configured for connection to a motor frame to rotatably support a shaft, a stator core on which a coil is wound to interact with a magnet on a motor frame to generate rotational force to rotate the shaft, and a circuit board, comprises the steps of:

providing a hole in each of the bearing holder, the stator core and the circuit board configured for receiving a soldering boss device configured;

20 assembling the bearing holder, the stator core and the circuit board to align their respective holes; and

inserting a soldering boss device through the aligned holes.

16. A method as claimed in claim 15, further comprising the steps of:

25 soldering the soldering boss device in the aligned holes; and

spreading the solder widely over the respective hole at the top and bottom of the assembly.

17. A method as claimed in claim 15, further comprising the step of providing a plurality of holes in each of the bearing holder, the stator core and the circuit board for alignment together and receiving respective soldering boss devices.

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18. A method as claimed in claim 17, further comprising the step of arranging the plurality of holes in the bearing holder radially about the shaft.

19. A method as claimed in claim 18, wherein the bearing holder has three of the
10 holes and the arranging step comprises the step of arranging the three holes 120° apart from each other.

20. A method as claimed in claim 18, further comprising the step of providing a plurality of holes in the motor frame and the bearing holder that are aligned and configured for
15 receiving respective screws therethrough.

21. A method as claimed in claim 20, further comprising the step of interspersing the plurality of holes in the bearing holder for receiving respective screws with the plurality of holes in the bearing holder for receiving respective soldering boss devices.

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